	CI NRM	CI REL	RFS	OS
No AZA				
1yr	18.7 (10.5 – 28.7)	38.6 (27.6 – 50.2)	42.9 (31.6 – 54.5)	58.6 (46.9 – 69.8)
3yrs	35.7 (24.7 – 47.4)	41.4 (30.2 – 53.1)	24.1 (14.8 – 34.8)	28.3 (18.4 – 39.4)
Yes AZA				
1yr	18.1 (10.8 – 26.8)	27.0 (18.3 – 36.6)	55.1 (44.7 – 65.2)	67.4 (57.4 – 76.7)
3yrs	24.1 (15.7 – 33.5)	33.9 (24.4 – 44.0)	42.5 (32.5 – 52.9)	48.0 (37.7 – 58.4)
			P=0.05	P=0.06

Utilization of pre-HCT 5-aza is a feasible strategy and doesn't appear to have any negative impact on HCT outcomes. Given the beneficial disease control facilitated by aza it should be offered to patients with high risk MDS being considered for a HCT.

342

Impact of Granulocyte Transfusion in Patients Submitted Allogeneic Hematopoietic Progenitor Cell Transplantation – a Single Center Experience in Brazil

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Background: In spite of modern antimicrobial and supportive therapy, bacterial and fungal infections are still major complications in patients with profound neutropenia. For decades, the value of granulocyte transfusion (GTX) has been explored and results are still not conclusive. Neutropenia caused by transplant conditioning regimens in patients who fail to respond to antimicrobial agents is one of the most common indications for GTX.
Objective: The purpose of this study was to analyze outcomes and risk factors for survival in patients who received GTX.
Patients and Methods: a retrospective analysis was performed on all patients submitted allogeneic hematopoietic cell transplantation (HSCT) who received GTX from january 2006 to april 2013 in our center. We analyzed patients characteristics, survival and identified risk factors for survival. Statistical analyses were performed using Graphpad Prism version 6.0. Fisher exact test was used to compare categoric variables and Kaplan-Meyer to evaluate survival. P level significance was $< 0,05$.
Results: We investigate the efficacy of GTX into 32 patients with severe neutropenia and fungal and/or bacterial infections. There were 50% (n= 16) females and 50% (n= 16) males. Of these, 46,8% (n= 15) were adults. Twenty-five percent of patients (n= 8) had genetic diseases, 43,8% (n= 14) had severe aplastic anemia and 31,2% (n= 10) had other malignant hematological diseases. A total of 196 GTX were perfomed. The average number of transfusion by patient was 6,125. The average number of granulocyte count in each bag was $3,84x10^{10}$. Every patients had neutrophil count at the hemogram below $100/mm^3$ and had unresponsive severe infection to antimicrobial and antifungal treatment at the day of the first GTX. In the period of infection, 56,3% (n= 18) had bacteria identified by culture: 61,1% (n= 11) gram-positive and 38,8% (n= 7) gram-negative; and 65,6% had presumed or confirmed fungal infection: 33,4% (n= 7) Fusarium *sp*, 38,1% (n= 8) Aspergillus *sp*, 9,5% (n= 2) Candida *sp*, 19% (n= 4) probable invasive fungal disease). Five patients received only one GTX before dying. Median survival for the whole cohort was 103 days. There was no significant difference in survival according to age, disease, number of GTX received and donor source. In bivariate analysis, patients with age higher than 14 years old and patients who received less than five transfusions had higher chance of death (p=0,015, OR-7,3 and p=0,03, OR-3,61 respectively).
Conclusion: GTX may have an adjunctive role in severe infections in patients with profound neutropenia submitted to HSCT. Children and more than five GTX were protective factors. GTX is an underutilized supportive modality for critically ill patients undergoing allogeneic HSCT and it seems to bring benefits in some groups of patients. Prospective randomized studies are necessary to a better evaluation of this procedure.

343

Lower Incidence of CMV Reactivation Following Allogeneic Stem Cell Transplantation Despite a High Seroprevalence - a Single Centre Experience

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Cytomegalovirus (CMV) infection is a major cause of morbidity and mortality following allogeneic stem cell transplantation (SCT). We wanted to study the incidence of CMV reactivation following SCT is high in a population where previous exposure to CMV is high. This is a retrospective analysis of consecutive transplants done in the Department of Haematology, Christian Medical College, Vellore India between January 2008 and December 2012. Recipient and donor demographics along with transplant data were recorded. Patients were monitored for CMV reactivation weekly using a CMV DNA PCR in the first 100 days post SCT. Four hundred and seventy five patients with a median age of 21 years (range: 1-59) underwent SCT for both malignant and non-malignant indications. Of these, 459 (97.2%) were CMV IgG positive. Donors were either sibling (n = 393) or matched unrelated (n= 82). CMV reactivation occurred in 36.6% at a median time of 41 days post SCT (range: 10 - 100). CMV disease occurred in 8 patients (1.68%). The use of a male donor (p=0.000), unrelated donor (p=0.000), degree of HLA mismatch (p=0.000), neutrophil recovery <15 days (p=0.005), acute GVHD (p=0.000) and steroid refractory GVHD (p=0.028) were identified as risk factors for CMV reactivation on univariate analysis. On multivariate analysis degree of HLA mismatch (p=0.009), early neutrophil recovery (p=0.014) and steroid refractory GVHD (p=0.014) remained independent risk factors. Most of the patients were treated with ganciclovir for a median duration of 16 days (14 – 21). The 5 year overall survival was significantly lower in